contain somewhat characteristic reddish orange borings or castings. It is easy by this means to secure records of a hitherto unsuspected wide distribution. Infested seeds were seen or received from the following localities:

New Hampshire: Portsmouth.

Massachusetts: Amherst, Ipswich, Lenox, Martha's Vineyard Island, South Hadley and Vineyard Haven.

Rhode Island: Barrington and Warwick.

Connecticut: Bethel, Bridgeport, Danbury, Fairfield, Greenwich, Hamden, Hartford, New Canaan, New Haven, Noroton, Norwalk, Ridgefield, Stamford, Thompson and Westport.

New York: Albany, Amawalk, Amenia, Bedford, Bronxville, Chatham, Croton Falls, Glen Cove, Haverstraw, Katonah, Lake George, New Hamburg, Mount Vernon, North Salem, Nyack, Pauling, Peekskill, Riverhead, Scarsdale, Syracuse, Tarrytown, Westbury, White Plains and Yonkers.

New Jersey: Plainfield and Red Bank.

Pennsylvania: Downington, near Philadelphia.

We have yet to learn of the occurrence of this insect west of Syracuse, although it was looked for in several places, including Cleveland, Ohio. This is possibly due to the infestation having been distributed from some eastern center. Seeds of other maples, especially the sugar maple and sycamore maple, were repeatedly examined without finding any evidence of the insect.

The wintering of this insect in cocoons upon the trees makes it very probable that a dormant oil application would practically eliminate the infestation. Applications in late May with a spray consisting of half pint of nicotine, 3 pounds of soap and two quarts of molasses to 40 gallons of water, gave a very promising degree of control. It killed adults and very probably prevented the issuance of moths from the cocoons. A dormant spray is probably more satisfactory.

A NEW SPECIES OF CHRYSOBOTHRIS INFESTING STRAWBERRY PLANTS (COLEOPTERA : BUPRESTIDAE).

By W. S. Fisher, *Bureau of Entomology, United States Department of Agriculture.*

Chrysobothris fragariae, new species.

Chrysobothris sp. Riley, Insect Life, vol. 5, 1892, pp. 17–18.

Chrysobothris pubescens Fall,——U. S. Dept. Agric., Official Record, vol. 8, No. 24, 1929, p. 3 (misidentification).

Male.—Broadly elongate, subdepressed, moderately shining, uniformly dark brown, with a more or less distinct greenish bronze or coppery bronze tinge in certain lights, the elytra without or with only vaguely indicated longitudinal costae and greenish spots.

Head feebly convex, with the front rather broad and the sides obliquely narrowed to the vertex; occiput broad and longitudinally carinate; vertex and front flat, without impressions or carinae; surface rather densely, irregularly punctate, the punctures variable in size and well separated, sparsely clothed with long, very fine, semi-erect, cinereous hairs; intervals smooth; eyes large, narrow, moderately convex, equally rounded at bottom and top, and separated from each other on the occiput by about the same distance as between the antennal cavities; epistoma broadly, rather deeply, angularly emarginate in front, the lobe on each side broadly rounded; antenna extending to middle of pronotum, gradually narrowed toward apex, sparsely clothed with moderately long hairs, joints compact, transverse, and the third joint only slightly longer than the fourth.

Pronotum strongly transverse, one and three-fourths times as wide as long, widest near middle, and about equal in width at base and apex; sides rounded at apical angles, parallel along middle, and obliquely narrowed behind middle to posterior angles, which are obtuse; anterior margin strongly sinuate, the median lobe moderately produced and broadly rounded; base (visible part) broadly, arcuately emarginate at middle of each elytron, median lobe broadly rounded and subtruncate in front of scutellum; surface slightly uneven but without distinct depressions, rather densely, coarsely punctate, the punctures more or less confluent toward sides, and sparsely clothed with moderately long, erect, inconspicuous hairs; intervals finely, densely granulose. Scutellum very small, triangular, with the sides about equal in length.

Elytra distinctly wider than pronotum at base; sides broadly rounded at humeral angles, nearly parallel to apical third, then arcuately narrowed to the tips, which are conjointly, broadly rounded; lateral margins not distinctly serrate; humeri not prominent; base broadly, arcuately rounded; surface with small, moderately deep, basal depressions, three very vague greenish spots on disk, one in front and two behind, finely, irregularly punctate, the punctures denser on basal half, more or less transversely rugose, and sparsely, irregularly clothed with long, erect, cinereous hairs; intervals obsoletely granulose.

Abdomen beneath sparsely, coarsely punctate, sparsely clothed with long, recumbent, cinereous hairs; intervals nearly smooth; first segment convex at middle; last segment with the lateral margins finely serrate, without a submarginal ridge, but deeply, arcuately emarginate at apex. Prosternum with a broadly rounded, strongly declivous, median lobe in front, the surface densely, coarsely punctate, and rather densely clothed with long, fine, cinereous hairs; prosternal process nearly flat, strongly expanded behind the coxal cavities, and with a very large triangular tooth at apex. Femora robust; anterior pair with a large obtuse tooth on inner margin near middle, the exterior margin of tooth vaguely serrate. Anterior tibiae arcuate, with a rounded dilatation at apices; middle and posterior tibiae straight and cylindrical.

Female.—Differs from the male in being more robust, eyes more widely separated from each other on the occiput, antennal joints not quite so compact, last abdominal segment vaguely emarginate at apex, and the anterior tibiae without dilatations at apices.

Length, 6.4–8.6 mm.; width, 2.8–4 mm.

Type locality.—Grand Mound, Washington.

Other localities.—Washington: Easton; White Salmon; Medical Lake. Idaho: Coer d'Alene; Moscow.

Type, allotype and paratypes.—Cat. No. 43175, United States National Museum. *Paratype.*—Collection H. C. Fall.

Described from thirteen examples, the type (male), allotype, and four paratypes from the type locality, reared from strawberry plants during March to July, 1930, by William W. Baker; two paratypes from White Salmon, Washington, reared from strawberry plants during July, 1930, by William W. Baker; two paratypes from Coeur d'Alene, Idaho (Bureau of Entomology No. 4765), reared from crowns of Sharpless strawberry plants sent to the Bureau by H. T. Back during 1890 and 1891; one paratype collected at Moscow, Idaho, by J. M. Aldrich; one paratype collected at Easton, Washington, by A. Koebele; one paratype collected at Medical Lake, Washington, July 14, 1920, by R. C. Shannon.

This species is closely allied to *pubescens* Fall, but differs from that species in being more uniformly bronzy brown, dorsal surface more densely punctured, foveae on elytra if present not impressed, and the costae on the elytra only feebly indicated.

The specimens examined show considerable variation in size, and in some of the examples the green spots and longitudinal costae are vaguely indicated, whereas in others these are not indicated. The specimens from the type locality are rather constant except in size, but some of the examples from the other localities show considerable variation from the type. In some examples the tips of the elytra are separately rounded, the sides of the pronotum slightly variable in shape, and in some of the females the sides of the elytra are slightly expanded behind the middle.

This species has been misidentified as *pubescens* and is probably confused in some collections under that name, but a specimen was sent to H. C. Fall, who has kindly compared it with his type and in a letter writes as follows: "It is not my *pubescens* and does not seem to be like anything else in my collection." It was first reported as boring into the crowns of Sharpless strawberry plants by H. T. Back, from Coeur d'Alene, Idaho, on September 1, 1890, and during that and the following year a considerable number of infested plants were sent to the Bureau of Entomology at Washington for rearing. In the Bureau file under number 4765 are the notes on this material made by L. O. Howard and Theo. Pergande, and these notes show that adults were reared as well as a lepidopteron, a tachinid, an anthomyiid, several small muscids, and a number of braconids, some of which were probably parasitic on the *Chrysobothris* larvae. Riley (1892) published a short note on this species from the above material. In the National Museum collection was an old speci-

men from Moscow, Idaho, labeled under the manuscript name *fragariae* by E. A. Schwarz, and this name has been retained for the species. Recently the species has been reported as damaging strawberry plants in Washington, and adults have been submitted for identification by William W. Baker. From all the records available it seems that this species is restricted in its larval habits to strawberry, but it probably also infests some closely allied wild plant.

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